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AUTHOR Walker, Doris McEwen
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ABSTRACT

Indiana University South Bend (IUSB) School Leadership Project has adopted as a central educational strategy, problem based learning and its sub-model, problems of practice, in its program to prepare school leaders. Problems of practice is an active learning model that involves students in taking responsibility for their learning by immersing students into the problems of school administration by placing them at building sites with practicing administrators. In one of two projects, students sharpened their written communication skills by working in teams to write a memo to an area superintendent suing specific guidelines. In another project on time management, students were involved in a range of activities faced by a school principal. Over an hour or two they handled correspondents, dealt with interruptions, conducted a classroom observation, met with hostile parents, handled telephone interruptions, and made an oral presentation to a group of concerned parents. Principals from area schools provided realism by serving as hostile parents, being telephone interrupters, and concerned parents. Following the experience students worked in groups to establish priorities for the tasks from the time management activity. Student feedback has been consistently positive. Program advantages and pitfalls are noted in detail. (Contains 40 references.) (JB)

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Practice What We Teach!

Implementing a Problems of Practice Instructional Delivery Strategy

Doris McEwen Walker
Indiana University South Bend
Division of Education
1700 Mishawaka Avenue
P. O. Box 7111
South Bend, Indiana 46634-7111

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INDIANA UNIVERSITY SOUTH BEND

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Abstract

Problems of practice is an active learning model that involves students in taking responsibility for their learning. It is an instructional delivery strategy that is receiving quite a bit of attention in the preparation of school administrators. Akin to problem based learning - the concept of involving students in simulated problems faced by school principals - problems of practice is based on the Harvard Medical School model, immersing students into the problems of school administration by placing them at building sites, with practicing administrators. Students are generally assigned to consultant teams and identify problems in conjunction with the designated practitioner. They work in an advisory capacity to develop recommendations for the issues.

The purpose of this paper is to focus on problem based learning and its sub-model, problems of practice. Problems of practice as an instructional delivery method is the central instructional strategy used in the preparation of school leaders at Indiana University South Bend (IUSB). Included will be general information on active learning models, problems of practice in the preparation of school administrators, an overview of the IUSB school leadership collaborative project, some logistics of implementing a problems of practice instructional delivery method, student feedback on problem based learning, and some advantages and pitfalls that have occurred during the planning phase of this instructional method at IUSB.

Practice What We Teach!
Implementing a Problems of Practice Instructional Delivery Strategy

The adage that universities are the slowest to change is evident in the instructional delivery models used. Many of these models still mirror lecture formats even though research continues to posit that the exclusive use of the lecture format is less effective than participatory models (Cross, 1976; Milton et. al., 1978; Bonwell & Eison, 1991; McKeachie, 1994). Students in educational administration curriculums study the literature and theories related to effective instruction as they prepare to supervise and lead instructional change in their administrative assignment. They are told that active learning models enhance student achievement and retention of information. The research on effective schools (Edmonds 1979, 1980; Lazotte & Jacoby, 1991; Levine & Lazotte, 1990), effective instruction (Madeline Hunter, 1983), and Johnson and Johnson's (1989) model on collaborative learning are commonplace in schools across the country, and all of them have active learning as a significant ingredient. Yet, the modeling they receive from university professors nonetheless remains teacher directed, lecture format. Universities must practice what we teach! There are a variety of instructional delivery formats. If indeed we, at the universities, espouse that they are effective techniques for K-12 instruction, then university classes must also model these practices - particularly in the preparation of educational leaders in school administration.

The purpose of this paper is to focus on an active learning model that has received recent attention in colleges of education in many areas of the country - problem based learning and its submodel, problems of practice. Problems of practice as an instructional delivery method is the central instructional strategy used in the preparation of school leaders at Indiana University South Bend (IUSB). Included will be general information on active learning models, problems of

practice in the preparation of school administrators, an overview of the IUSB school leadership collaborative project, some logistics of implementing a problems of practice instructional delivery method, student feedback on problems of practice, and some advantages and pitfalls that have occurred during the planning phase of this method at IUSB.

Active Learning - The Basis for Problems of Practice

Active learning is defined by Bonwell & Eison (1991) as "instructional activities involving students in doing things and thinking about what they are doing". (p. iii) They indicate that a serious gap exists between how faculty typically teach (i.e., relying largely on lecture method) and how they know they should teach (i.e., employing active learning to facilitate students' mastery of subject matter, develop intellectual skills, and form personal attitudes and values). (p. 4) Lecture methods, they say, constrains students' learning. (p.8) Other proponents of active learning also acknowledge that the lecture method of instructional delivery should not be the exclusive method of instruction. Keller (cited in Cross, 1976, p. 92), states that lectures could be eliminated without much damage. Research has shown that the retention of information is adversely affected by the lecture method.

> Ten percent of the audience displayed signs of inattention within 15 minutes. After 18 minutes one-third of the audience and 10 percent of the platform guest were fidgeting. At 35 minutes everyone was inattentive; at 45 minutes, trance was more noticeable than fidgeting; and at 47 minutes some were asleep and at least one was reading. A casual check 24 hours later revealed that the audience recalled only insignificant details, [which] were generally wrong (Verner and Dickinson 1967, p. 90 cited in Bonwell & Eison, p. 9).

In addition, it has been shown that lectures are no more effective in transmitting information than other methods (Bligh 1972 cited in Bonwell & Eison) and in fact they are clearly less effective in promoting thought or in changing attitudes. Professor Walter Kaufmann (1977, pp. 187-188 -

cited in Milton, 1978, p. 35) gives this view of lectures:

> Lectures are...highly problematical, and most of them are certainly a waste of time. If the lecturer does not write them out, chances are that they will be greatly inferior to something available in print that could be assigned instead. And if he does write them out, there seems to be no need for him to read them off because they could easily be made available to the students to read for themselves in half the time...Does it make any sense for people who are bad at lecturing to go right on doing it for decades and alienating students? It seems obvious that at the very least something should be done to decrease the percentage of poor lecturers. But in fact there are thousands of colleges and universities in North America alone, the number of professors at many of them is several hundred, and hardly any of them have ever received any advice, not to speak of instruction, about the art with which they earn their living. I doubt that the great majority have ever given very much thought to the point and aims of lecturing. What if anything, can be achieved in this way that could not be done far better by adding another assignment?

Yet, lecture remains the modus operandi for college professors. It is unlikely that active learning will replace lecture, however, it must be viewed as a serious competitor and a viable instructional strategy. The evidence suggest that if an instructor's goals are not only to impart information but also to develop cognitive skills and to change attitudes, then alternative teaching strategies should be interwoven with the lecture method during classroom presentations (Bonwell & Eison, p. 10).

The broad operational definition of active learning - as anything that involves students in doing things and thinking about the things they are doing (Bonwell & Eison, p. 2) suggest that several models of instruction can be described as active learning. The following list is not intended to be exhaustive, but will provide some examples of active learning: case studies, guided design, computer-based instruction, cooperative learning, debates, drama, role playing, simulation, and games, peer teaching, field experience, and practicums. It is a combination of pieces of these active learning models that constitute problem based learning and its submodel problems of practice.

Case studies were introduced at Harvard Law School in the 19th Century. Fisher (1978, p. 262) defines a case study as "the factual account of human experience centered in a problem or issue faced by a person, a group of persons, or an organization. It describes real situations in real settings that require or suggest the need for discretionary action." A case, Fisher says (chapter in Milton, 1978, p. 260) is a factual written account of a situation, condition and/or experience. Case study as a teaching method, is the use of cases to effect problem-centered learning. (p. 260) Case study is an opportunity for students to vicariously experience situations that are similar to those they may encounter as a practitioner. Bonwell and Eison (p. 39) state that, "Empirically, case studies have proven to have several advantages as a strategy promoting active learning. Because they are based on real-life incidents, case studies that incorporate role playing allow students to vicariously experience situations in the classroom that they might face in the future and thus help bridge the gap between theory and practice." Fisher (cited in Milton, 1978, p. 259) supports this view when he indicates that "the case study approach...an opportunity for greater participant identification and vicarious projection into real-world issues and circumstances, an opportunity to analyze and solve problems in an informal, detached atmosphere in which peer wisdom is shared and in a manner conducive to sound, objective decision making." Success in teaching cases depends on our purposes as well as on the ways we connect the case analysis with the larger framework of the course (Parker & Tiezzi, 1992).

Guided design is a model within active learning that is based on a modified decision-making model that explores solutions to open-ended problems (Bonwell & Eison, 1991, p. 40). It was developed at West Virginia University in the late 70's and includes the following steps:

1. Stating the problem and establishing a goal;

2 Gathering relevant information;
3 Generating possible solutions to the problem;
4 Listing constraints on what can be accomplished;
5 Choosing a possible solution;
6 Analyzing the important facts that must be considered in the development of a detailed solution;
7 Creating (synthesizing) a detailed solution;
8 Evaluating the final solution; and
9 Recommending an appropriate course of action.

(Wales and Nardi 1982, cited in Bonwell & Eison, 1991, p. 40)

Guided design is useful as a method of instruction that encompasses problem-solving.

The advent of technology has given consideration to computer-based instruction as a useful active learning instructional model. Computer-based instruction is defined as the use of computers - either in the classroom or in associate laboratory settings (Bonwell & Eison, p. 41). Although typically computers have been used for "routine drill and practice, for managing data, for word processing, or for programming information" (p. 41), the expansion to the internet and world-wide webs gives computers an unlimited use as a model in active learning. The potential for computer-based learning is yet an untapped resource in the preparation of educational leaders in school administration.

Active learning strategies also include cooperative learning. It has recently gained favor in colleges and universities (Cooper 1990). In some cases cooperative learning is used simultaneously with peer learning and collaborative learning (McKeachie, 1994, p. 143). "Collaborative and cooperative learning involve peer learning in which there is interdependence of group member in working toward a common goal (p. 143). The goal of cooperative learning is to enhance students' learning and to develop students' social skills like decision making, conflict management, and communication (Bonwell and Eison, p. 43). Cooperative learning emphasize

small groups of students working together in a structured process to solve an academic task - duration can be anywhere from one class period to a whole semester (p. 43). "Collaborative learning...is a pedagogical style that emphasizes cooperative efforts among students, faculty, and administrators...it benefits participants by making them more active as learners and more interactive as teachers (Whipple 1987, p. 3 cited in Whitman, 1988, p. 4). The basic component of cooperative learning is positive interdependence, in which students rely on each other as a group to effect learning.

Debates are another form of active learning. The format of debates can range from the formal presentation of opposing sides with a chance of rebuttal to less formal situations where the presentation of arguments for both sides serves as the basis for discussion in class. Based on the definition of active learning as involving students in doing things and reflecting on the things they are doing, debates are perceived by students as effective means of engaging students in their learning. Bonwell and Eison (1991) cite a study done by Ailert, 1988, in which a questionnaire was given to students at the end of a course. The questionnaire found that 75 percent of students preferred the incorporation of debates into the class as long as the instructor provided appropriate information to introduce and summarize the discussions.

Another active learning strategy is role playing, simulations, and games. Role play is defined as "sessions that last less than an hour, while simulations and games can last for several hours or even days" (Bonwell & Eison p. 47). Bonwell and Eison go on to say that simulations and games (which can include role playing) are defined more precisely than are role plays (which are often spontaneous) and include guiding principles, specific rules, and structured relationships (p. 47). The teacher's function becomes one of structuring the situation by providing background

details and a general sketch of the roles to be played, to share with the audience the specific goals of the role play so that they can observe and then participate in the ensuing discussion, to serve as facilitator as the role play develops, and to guide the evaluation of the role play and to restate or summarize pertinent developments (Lachs 1984, cited in Bonwell & Eison, p. 48). Role play promotes working in groups (Cloke 1987, cited in Bonwell & Eison, p. 47) and may be used as a way of helping students vicariously experience situations that may be "stressful, unfamiliar, complex or controversial" in a less threatening manner (Davison 1984, p. 91).

Peer teaching, considered by some to be a subset of the collaborative learning movement in higher education (Whitman 1988, p. 4), is another model of active learning. Goldschmid and Goldschmid 1976 (cited in Bonwell & Eison), gives five types of peer teaching:

- Discussion groups - led by student teaching assistants are used to supplement large lectures. In some cases, students who previously have done well in the course are asked to help prepare and correct exams as well as to lead group discussions.
- As an element of the Personalized System of Instruction (PSI) developed by Keller, students act as proctors who work on a one-to-one basis with students taking the course. The proctor's role is to administer tests on the numerous course units worked through by the individual students and give constructive feedback on the test results. Proctors also may let the course director know how their students are doing and report any problems with course materials.
- Course directors organize students into work groups conducted by the students themselves. The purpose of student groups is to increase participation. In some cases, the groups may work completely independently of the teachers, or may periodically report to

the teacher.

- Students are organized into learning cells in which two or three students alternately ask and answer questions on commonly read material, or critique each other's written work.
- Student counseling occurs outside the classroom when students seek assistance at a counseling center where trained students are available to provide one-to-one help. The student counselor may review study habits, recommend strategies for improving a grade, or provide feedback on course assignments before work is turned in to the teacher.

Of these five types, Bonwell and Eison indicate that partnerships (learning cells) and working groups promote the use of active learning.

Wilson (1981) indicates that peer teaching has important cognitive and affective benefits. He says, "It forces students to 'learn how to learn' to consolidate his grasp of the subject." (p. 87)

Field experience is defined as "out-of-classroom learning activities sponsored by an institution or a faculty member in which the learner has the primary responsibility for the educational endeavor, usually the student has the responsibility for a specific task or work assignment, which is the major vehicle by which the student learns" (Duley in Milton 1978, p. 314). Goals of field experiences are to help students:

- put theory into practice, develop the higher cognitive skills: learn how to apply, integrate, and/or evaluate knowledge and/or the methodology of a discipline or field.
- acquire knowledge: engage in research, analyze the organizational structure of a firm or an agency
- acquire and develop specific skills: problem solving, interpersonal, group process, coping and/or psychomotor.
- increase personal growth and development: increase self-understanding, self-confidence, self-reliance, and/or clarify values.
- learn how to learn independently: develop the ability to use experiential learning theory or engage in cross-cultural learning.
- explore careers: develop self-understanding and acquire and use career exploration skills.

- become responsible citizens: develop a firsthand understanding of the political system, identify issues of concern, and develop the political and social action skills appropriate to citizenship. (Duley in Milton 1978, p. 315)

Field experience, sometimes under the auspices of experiential learning, provides an opportunity for students to extend their learning into application of concepts in real-life situations. "Field experience education is a valuable supplement to classroom learning because it provides different and educationally important role development opportunities to students that are not available in the classroom" (Duley, cited in Milton, 1976, p. 317-18). McKeachie (1994) describes field experience as "one of the valuable residues of the student revolution of the 1960s..." (p. 139) It is hoped that experiential learning and field experiences, will foster questioning in students that will lead to active learning. (p. 140)

Practicums are another model of active learning. Schon defines a practicum as "a setting designed for the task of learning a practice" (1987, p. 37). Schon posits that a practice is learned by immersion into the "community of practitioners and the practice world they inhabit". (p. 36) In this way students in practicums "learn their conventions, constraints, languages, and appreciative systems, their repertoire of exemplars, systematic knowledge, and patterns of knowing-in-action". (p. 36-37) Like field experience and internships, students are placed at sites to work in real-life situations relative to the profession that are aspiring. Schon says that "...a coherent professional school places a reflective practicum at the center, as a bridge between the worlds of the university and practice". (Schon, p. 309) He goes on to say that, "...it must cultivate activities that connect the knowing- and reflection-in-action of competent practitioners to the theories and techniques taught as professional knowledge in academic courses. (p. 312)

Schon indicated that the studiolike practicum was intended to serve several functions. "We wanted to use it as a prism through which to see the utility of ideas and methods presented in the courses. We wanted it to be, in addition, a vehicle for student and faculty reflection on the process of framing problems in a messy, conflictual situations drawn from actual planning practice - a setting where students would reflect on the tacit theories they brought to their project solutions and try out their newly acquired methods of quantitative description and analysis. (p. 334)

Active learning embraces a number of models that involve students in "doing things and thinking about what they are doing". Colleges and universities have been giving serious consideration to the models of active learning in the preparation of educational leaders in school administration. While there is not research to espouse one model over another in the development of effective school leaders, certainly attention to these models, as well as hybrid and combinations of the models, are surfacing in the literature and research relative to the preparation of school administrators. Problem-based learning is a paradigm that contains many components of the aforementioned models of active learning. It is also one that is becoming useful in the design of programs to prepare school administrators.

Problem-Based Learning (PBL)

The preparation of leaders for today's schools continues to present challenges and promises for the professorate. On the one hand we have practitioners saying that university programs did not prepare them for the realities of their district administrative assignments, and on the other hand, we have universities holding to traditional instructional delivery. Murphy (1992) states that "... although some progress was made during the behavioral science era to infuse

reality-oriented instructional strategies into preparation programs, the change has hardly been revolutionary and the use of innovative pedagogical methods is not prevalent". (p. 103) Mike Murphy of the University of Colorado Denver in his personal research agenda presented at the National Council for Professors of Educational Administration (1994) gave a scenario of a professor who had spent one year on leave as an elementary school principal. This principal/professor indicated that he had very little occasion to use the theory and research with which he had become familiar. "Practitioners, when asked about the adequacy and usefulness of their preparation, have been quite unenthusiastic...most administrators apparently find little occasion to apply the theory and research they learned in their administrator preparation program to the difficult problems of practice" (Murphy, 1994, p. 4). The need for the link between theory and practice in the preparation of school administrators is also espoused by the National Policy Board for Educational Administration (NPBEA).

> New principal preparation programs must address the troublesome "clinical gap" that exists between classroom and practice, and between subject content and specific technique...the search for knowledge and skills base should begin with the work of principals in contemporary schools...the connections between knowledge and skill should be recognized in the many problems principals respond to and in the many tasks they initiate. (Thompson, 1993, pp. x-xi)

The advent of changes in the preparation of school leaders in universities' Departments of Educational Administration across the country may present an arena for change in instructional delivery methods. A model being given considerable attention in the literature in changing the way school leaders are prepared is problem based learning (Bridges and Hallinger, 1992, 1995).

A few schools that have revised their administrator preparation programs to include variations in instructional delivery technique similar to problem based learning are: Stanford University (Bridges, 1992); University of Central Florida (Milstein, 1993); University of Colorado at Denver (Murphy, Muth & Martin, 1994); University of Connecticut (Milstein, 1993); University of Memphis (Valesky, Markus & Nelson, 1993); University of Northern Colorado (Daresh & Barnett, 1993); Vanderbilt (Murphy, 1992); Miami University, Ohio (Cameron-McCabe, personal communication, 1994, August); Western Michigan University (Jenlink, 1992); Indiana University South Bend (Walker, 1995).

Problem based learning challenges the traditional view of teaching as transmission of knowledge and learning as acquisition of that knowledge. This "Container-Dispenser model" of teaching and learning enacts the metaphor that knowledge is a substance, material, or source of power, instructors are containers (filled with content, material, and facts), and students are vessels (wanting to be filled up)" (Pollio 1987, cited in Bonwell and Eison p. 55). PBL proposes that "learning involves both knowledge and doing...and further assume(s) that the problems students are likely to encounter in their future professional practice provide a meaningful learning context for acquiring and using new knowledge" (Bridges, 1995, p. 5).

Problem-based learning is relatively new in educational administration, although it encompasses the thinking of John Dewey's approach to initiate students into the practice by involving them in solving real social problems in their communities. "The customs, methods, and working standards of the calling constitute a 'tradition,' and...initiation into the tradition is the means by which the powers of learners are released and directed" (Dewey 1974, p. 151 cited in Schon 1987, p. 17). Problem-based learning presents a different way of thinking about what

school administrators should be able to know and be able to do (Murphy, Sanders, Muth, & Martin, 1994, p. 6). It "reflects a different set of underlying assumptions about what is to be learned. They are that knowledge is internally constructed and therefore varies somewhat from person to person; instead of a template there are social conventions that govern the legitimacy of templates for knowledge and direct experience is basic to an individual's construction and organization of knowledge" (Murphy, et. al., p. 6). Murphy describes problem-based learning, as espoused by Bridges and Hallinger, as a "caldron where research and practice are blended" (Bridges and Hallinger, 1995, p. x).

Problem-based learning, although relatively new in the preparation of school administrators, has been used in the preparation of physicians for more than a decade (Bridges, 1995, p. 4). "The Making of A Doctor" (videotape produced by NOVA) shows the training preparation of physicians and highlights the fact that the new model places aspiring physicians with patients as early as three weeks into their first year of medical school. This early placement is designed to link theory and practice in the training of physicians. The preparation of educational leaders is being modelled after the training of physicians. This problem-based learning approach is designed to immerse students in problems faced by school administrators. "In a PBL environment, instead of lecturing or leading discussions, instructors present students with problematic hypothetical situation called projects. Working together in small teams, students then assume responsibility for responding to the situations with which they are presented. Instead of functioning as dispensers of knowledge or portraying themselves as professors of the solutions to professional dilemmas, PBL instructors serve as observers and advisors" (ERIC Clearinghouse on Educational Management Newsletter, 1994).

Problem based learning is defined as "learning that results from designing solutions to significant educational problems by collaboratively applying relevant knowledge through the use of intellectual task" (Murphy, 1994). Colleagues at the University of Colorado Denver, Murphy et. al., further give this operational definition of problem-based learning delineation by specifying the following terms:

- Learning - improvement in knowledge, skills, dispositions; personal and professional; multiple measures in real settings
- Designing - creating, analyzing, inventing, appraising, "ways of thinking"
- Significant educational problems - systems, shared vision, strategies, structures, styles, staff.
- Collaboratively - professor; practitioner; student teams; individual or group; self, peer, supervisor, client participation
- Applying Relevant Knowledge - theory, research, exemplary practices
- Intellectual task - critical thinking, problem analysis, inquiry, synthesis

(Murphy, M. & Martin, M., personal communication, Handout from workshop on Problems of Practice at NCPEA Annual Meeting, 1994, August)

The goals of problem-based learning, as indicated by Bridges and Hallinger (1995) are:

1. Familiarize prospective principals with the problems they are likely to face in the future. Such problems should be those with high impact; that is, they affect a large number of individuals for a relatively long period.
2. Acquaint students with the knowledge that is relevant to these high-impact problems. Such knowledge likely comes from a variety of disciplines, rather than from a single one.
3. Foster skills in applying this knowledge. Since PBL assumes that knowing and doing are equally important, students should be provided with opportunities to use their knowledge and to test its utility in dealing with real-life professional problems.
4. Develop problem-solving skills. Since the character of future problems is somewhat unpredictable, attention must be paid to promoting skills in finding, framing, analyzing, and solving problems.
5. Develop skills in implementing solutions. Consistent with the emphasis on doing as well as on knowing, students should implement their proposed solutions.
6. Develop leadership skills that facilitate collaboration. Critical to collaboration are skills in the following: planning and organizing projects, running meetings, achieving consensus, resolving conflict, and listening.
7. Develop an array of affective capacities. Unless principals acquire a strong

commitment to collaboration and the patience to use this kind of leadership style, they are unlikely to use their skills in working with others.

8. Develop self-directed learning skills. With an exploding knowledge base and ever-changing problems, principals need to acquire skills in identifying gaps in their own knowledge, in locating relevant resources, and in evaluating the suitability and appropriateness of the resources for the issues confronting them.

Problem-based learning borrows important concepts from several of the active learning models. It may be "presented in various ways - written cases, vignettes with limited information (additional information supplied in response to students' request for specific data), filmed episodes, and real-time problematic situations...considerable emphasis on developing analytical, problem-framing, and problem-solving skills" (Bridges and Hallinger, 1995, p. 14). The focus of problem-based learning is a project. The components of problem-based learning are listed below:

Introduction - introduces the student to the focal problem for the project and provides a rationale for including the problem in the curriculum.
Problem - a high impact problem...that an administrator is likely to face in the future...that has the potential to affect large numbers of people for an extended period. [Usually includes a detailed scenario of the context - school district demographics - in which the problem takes place.]
Learning objectives - indicating what knowledge and skills the student is expected to acquire during the project.
Resources - books, articles, films, and consultants.
Product specifications - the culminating activity that includes some type of performance, product, or both. [Memos, oral presentations, reports are a few examples of product specifications.]
Guiding questions - are given to 1) direct students to key concepts, 2) assist students in thinking through the problem, and 3) stimulate students to view the problem from alternative perspectives.
Assessment exercises - students are given feedback regarding their processing skills, their utilization of the problem-relevant knowledge, and their final product and performance.
Time constraints - projects are framed within specific time periods - generally six to 15 hours. The intent, however, is that the project terminates when learning and product objectives are achieved. (Bridges and Hallinger, 1995, pp. 25-36)

Problem-based learning is designed to minimize some of the shortcomings of other active

learning models.

Bridges has successfully used problem-based learning in the Stanford University's principals preparation program. He, along with colleagues at Vanderbilt University, have developed problem-based learning projects for use in administrator preparation programs.

Other preparation programs have taken problem based learning a step further. In addition to focusing students on a high impact problem, they have chosen to take these problems outside of the classroom setting, to clinical sites. "In our program at UCD (University of Colorado Denver), we have decided that problem based learning probably must move from reliance on simulation and classroom-based learning and into contextually-real situations in which students are required to participate in the solution of difficult problems of actual practice. Students work with schools in consulting teams to engage in the process of school design, of diagnosing difficulties in a particular school and in constructing and implementing school improvement plans" (Murphy, Sanders, Muth, & Martin, 1994, p. 7). This concept - known as problems of practice - is the focus of the principals' training program at Indiana University South Bend.

Indiana University School Leadership Project

The Division of Education at Indiana University South Bend (IUSB) began the implementation stage of a principal's preparation program to address the link between theory and practice in curriculum content (May 1995). The primary instructional delivery method used in the program is akin to problem based learning -- problems of practice. The program premise is that collaboration with school districts on curriculum design and an instructional delivery based on problems of practice, co-taught with practitioners, will provide a more relevant program in educational leadership. This represents a significant departure from conventional instructional

methods. Students aspiring to be school principals will be immersed in issues and problems faced by practitioners by working on consultant teams at building sites to research and make recommendations on identified problems and issues.

The School Leadership Collaborative, as it has become known at IUSB, is a result of reviewing past practice in the preparation of school administrators and addressing the criticism that past programs were not adequately preparing school leaders. As a result of a Lilly Endowment grant (1993) and in collaboration with four surrounding Indiana school corporations - South Bend Community School Corporation, The School City of Mishawaka, Penn-Harris-Madison School Corporation, and Elkhart Community School Corporation, the training of principals will take a different approach - one that preserves the best practices of the current program yet is innovative in addressing administrative preparation.

The new principals' certification program at IUSB is a cooperative effort between the university and the area school corporations. The first cohort, consisting of fourteen students, was selected in May, 1995, after completion of an introductory/screening course. Their admittance was determined by a panel of practitioners and IUSB faculty. This first cohort will begin their course sequence in Fall 1995. Curriculum for the principals' preparation program is based on 21 Domain structures established by the National Policy Board for Educational Administration (Thompson, 1993). The Domains have been consolidated into four major content areas: Communications and Interpersonal Relations, Knowledge of Teaching and Learning, Community Context, and Leadership and Organization. The courses constitute 21 semester credit hours. In addition, students are also required to take a course in school law (3 semester hours) and develop a portfolio (0 semester hours) to be presented in an exit interview. A major component of each

course is students' involvement in consultant teams to work in school sites on problems of practice with building principals. The program is designed to be completed in 4 semesters (after the completion of the introductory course).

The School Leadership Collaborative was established on the premise that persons who aspire to be school administrators need to be directly involved in problems facing school administrators. It is felt that in this way students will determine their "fit" with school administration, while gaining practical experience. Practicing school administrators felt that the training of school administrators must also include them. Their practical knowledge and expertise, it was felt, would be valuable in acclimating those desiring to become administrators. Practitioner, therefore, made a commitment during the planning phase of this project to provide placement sites, modeling and mentoring, work with university faculty in developing problems of practice for each of the curriculum areas, to objectively review applicants, and to participate in the screening of students for the cohort. Practitioners also felt that each course should have co-faculty - a practicing administrator - assigned to work with the university faculty in delivering course content.

The use of practitioners reflects Schon's (1987) studiolike practicum, the medical model in which medical students learn with clinicians, and the University of Colorado at Denver model in which principals are trained not only in the classroom, but in the field as well, with the support of faculty and practicing administrators. "Our shared and combined experiences have brought us to recognize the importance of field and university collaboration and the necessity of including practitioners in our work with students, not just to gain their perspectives but also to have them model how they think about and act on problems. This collaborative strategy can meld the best of

the university with clinical practice to the benefit of all parties in the process" (Muth, Martin, Murphy, & Sanders, 1994, p. 5).

Logistics of Implementing a Problems of Practice

Instructional Delivery Method

The principals' certification program was designed to incorporate problems of practice as an integral instructional component in each of the courses at Indiana University South Bend. The first course offered in this new principals' certification program was an introduction/screening course. This course was offered during the time period between May 15 and June 26 (Summer I). The major goals of the course were to provide students with general information on school administration, specifically the principalship, and an introduction to problem based learning and the concept of problems of practice. It was hoped that students would be placed at school sites for their problems of practice assignments. Two problem based learning projects were used in the course. Write Right! and Time Management: Work of the Principal. Both were developed by Edwin Bridges (1994) from Stanford University.

Write Right! is a project designed to help aspiring principals sharpen their written communication skills. Student were placed in project teams by the instructor (based on information obtained from their participation in the Meyers' Briggs Leadership Inventory), assigned to the role of group leader, facilitator, recorder, or member and given one copy of Munter's (1992) Guide to Managerial Communication as a resource beyond their project packet. The project packet also contained articles on suggested communication styles. After reviewing the resources given, students were to write a memo to an area superintendent using the guidelines identified in the product specification section of the project. Students were told that the grade for

the project would be based on the instructor's feedback to their project, not the superintendent's feedback. Students were given portions of three class sessions to complete the project (Bridges recommended 6-9 hours for this project). After completion, a debriefing was held on the group process. Students were also assigned an integrative essay in which to reflect on the project and the group process.

The Time Management: Work of the Principal project involved students in a range of activities faced by a school principals. The project design is for students to work for a two hour period to try to handle correspondence, deal with interruptions, conduct a classroom observation, meet with a hostile parent, handle telephone interruptions, and make an oral presentation to a group of concerned parents. Practicing principals from area school corporations provided realism to the project by serving as hostile parents, being telephone interrupters, and concerned parents. Students were scheduled into slots unknown to them and were given memos and telephone messages highlighting where they were needed next. The project required significant attention to detail and scheduling. In addition, there were twenty one students in the class, which required that the project be done in duplicate - with two sets of practitioners for each activity. Following the time management simulation, students were placed in groups assigned by the instructor. These groups selected their own group leader, facilitator, and recorder. Their task was to establish priorities for the tasks from the time management activity. Overall, it was an extremely valuable project. Practitioners were very enthusiastic about the projects and its relationship to the actual practice of school administration. At the class session following the simulation, students had to review the literature provided on time management and prioritize the activities they had engaged in during the project session.

From an instructor's view, the projects were well worth the effort it took to understand them and set them up. Student feedback also indicated that they were worthwhile.

The introductory course also required students to work in teams to design a simulated problems of practice presentation, which constituted a major project for this course. The simulated problems of practice was in lieu of students being placed at building sites in consultant teams. This first course did not lend itself to placing students at building sites because of the time period it was offered, the end of a school year. Also problematic was the energy that has been spent in the preparation of the new leadership program and obtaining its approval within a total university system. By the time approval was finally attained, the course was scheduled to begin, thus providing no time for inservicing practitioners on problems of practice. It should be noted however, that twenty nine principals from the four school corporations in the School Leadership Collaborative project responded to the request to provide clinical sites for problems of practice. A phenomenal number considering the maximum we would have been able to use would have been 4-5.

Problems of practice simulations were done in both the introductory/screening course offered as part of the new principals' certification program, as well as the introduction to school administration course that was offered in Fall, 1994 as the last course in the "old" principals' certification program. Student teams were very creative in the design of the projects and the presentations were consistently of high quality. Students in both the Fall 1994 course and the May 1995 course indicated that they felt the activity was worthwhile.

Student Feedback

Students completed course evaluations as part of the university course evaluation system.

These evaluations are done anonymously by the students on scantron sheets. Students have the option of providing addition comments. The written comments are shared with the faculty, along with the summary data. Comments were generally positive in both the Fall, 1994 course and the Summer 1995 course. A list of all written comments related to the simulated problems of practice assignments are indicated below:

Fall, 1994 A500 - School Administration (enrollment 35 students)

- I enjoyed this class and felt I learned a great deal. I feel it should be required as a first course for administrators. My one concern is the amount of work required.
- The project was worthwhile, but too time consuming.
- Thanks for a great class. I learned much, and this class helped me become more determined to pursue a career in administration.
- Enjoyed the course. More time should be spent in class with the ... project.
- ...the problems of practice exercise was extremely worthwhile.
- I learned a great deal because of the structuring, (problem-based) not all teacher lecture. Great job!

Summer I 1995 A500 - School Administration, new principals' certification course - (enrollment 21 students)

- Interesting class. One of the best I've attended at IUSB!
- Excellent!

Students in the Summer 1995 course were also given what Bridges refers to as "talkback" sheets for both the Write Right! and Time Management: Work of the Principal projects. A summary of student feedback for the Write Right! project is provided for your information. The same

information is available for the Time Management project, however lengthiness prohibits its inclusion in this paper.

Write Right!: "Talkback" Sheet

1. How did you feel about this project when you first read about what it involved?

a. I felt confused, especially on how to write the memo. I was overwhelmed with all the information that I received.

b. That the parents were reacting without all of the facts. I felt frustrated and left out at times.

c. I thought it would be a good learning experience. I like simulation type activities. I truly felt pulling from all people in our group made for a better solution.

d. I think that the basis for the project was a valid one. I enjoy trying to solve problems and form possible solutions. I was leery about being put in a group situation when I hadn't had time to prepare.

e. I felt the project would be a good learning experience, however, I felt at a loss as to what the problem was.

f. I think the problem is a real one. Although I felt frustrated when I first read it because I was concerned about getting enough information quickly so that I could write the memo.

g. My first impression was "Good Lord, don't let this type of situation happen to me." However, in the ever increasing, and changing, and demanding world of education, this type of scenario is very possible. So in that view it was good for the 'shock' of it as compared to a much simpler scenario of Johnny put Susie's pig tails in the inkwell.

h. The memo project and problem were very realistic and I felt it was very needful for prospective administrators. The group aspect was important but was very frustrating.

i. This situation is very involved and could be quite messy, but it is not atypical of what would happen and how many people would be involved. Many distractors to identifying the real problem existed.

j. Frustrated! I was glad when I was working in a group. I needed the security of the dialogue.

k. Immediately - I felt very bad for Tommy. It was unfortunate that the principal had not

gotten involved sooner. Lisa Hammond should have been informing the principal. I did not understand the project at the very beginning.

l. I felt overwhelmed with the problem. I also wondered how seven people would come to one solution.

m. Frustrated but it cleared up as the group began to meld. I liked the realism of the project. I felt a need for more time, but the lack of time caused a better focus.

n. My first thought was one of being insulted that we're being taught at this level to write a memo.

o. I felt that this project was a "real life situation", one in which most principals will face in the near future.

p. At first, when I read this I was asked to prepare a one page memo I was not threatened. But, as I read through the information and learned the complexity of the situation, my feelings changed.

q. The project seemed overwhelming at first. There seemed to be so many problems involved at first.

r. I felt it to be realistic. It seemed as though intervention should have taken place sooner.

2. Now that you have completed the project, what are your feelings about it?

a. I enjoyed writing the memo. I wish we would have had a time limit, because memos usually have to be handed in to the superintendent the day he/she asked you to do it.

b. It was a great experience and a real life problem.

c. I enjoyed our group dynamics. I feel the writing techniques and process got lost in deciding (the) problem and its solution.

d. I felt that the project was beneficial, writing a memo is a skills that is needed no matter what your job description is. I was more disturbed by the group process than the assignment itself.

e. It was a good learning experience, but we needed to spend more time on the process of writing.

f. My feelings have changed because I feel more knowledgeable about the situation.

g. I feel good about what I've seen and [?], however I'm still slightly uncomfortable about writing a memo. I'm also confident that with time and practice it should become easier. More complete memos both good and poor would be helpful.

h. I appreciated the entire aspect. It was a well done project.

i. Good project, very realistic situation. Forced me to look at a situation from many different points of view.

j. Personally I am elated that it is completed. I (am) anxiously awaiting the comments.

k. I liked the project. The class dialogue was a good process. The smaller group was not as good.

l. I feel that I learned better how a group can and should work together. I also know how to write more concisely.

m. I think it was a terrific learning experience. I would like to be able to do one or more of these in each section of the collaborative.

n. It was excellent! The problem was a difficult one to resolve. I loved discussing it and coming to a resolution.

o. Excitement that administrators are being asked to focus on issues that effect both regular and special education students.

p. Upon completion, I feel a group atmosphere would have been a great learning experience as ideas are offered from all those involved. I realize my special circumstances did not permit me to work in a group and therefore was forced to make single-minded decisions. The project was a great learning tool.

q. It was a good project that could happen or something similar to it.

r. I do not think it brought enough focus to improving one's writing skills.

3. What did you learn from this project?

a. I learned that the group cohesiveness is important to reaching a solution, and that memos need to be properly written and well-organized for good communication purposes.

b. There are many underlying factors in a problem. We must make the best decision possible without ruining relationships.

c. Hopefully, how to work in a group. As a talker, I was forced to give others a chance to be a good facilitator. Realized the importance of accepting individual differences.

d. There were some very helpful hints on writing business letters and office memos. The importance of preparation in presenting to group. Your expectations for them and what you want to accomplish.

e. It is important to have a diverse group when problem solving. The diversity adds perspective.

f. There may be many leaders within a group but if a consensus is to be made, the group must work together.

g. One aspect that I acquired was to write in small precise ideas in a few mandates.

h. Mostly group dynamics and problem identification. The actual memo writing shortcuts were beneficial.

i. Learned a lot about group dynamics and working toward a consensus. Learned about the difficulty of summarizing and being brief on a memo!

j. I learned how to write a memo- the style.

k. Many viewpoints and many ways to solve problems. Our group had many members all in various areas who saw the project differently.

l. I learned that it is extremely important to write a precise, concise memo.

m. I learned how to front load information in a memo. I learned about the group dynamics.

n. Some good tips on writing a concise, quickly written memo.

o. How to communicate with a group of leaders.

p. The project truly forced one to seriously weigh the pros and cons of all decisions. It was also necessary to carefully absorb all details of the situation and to weigh the consequences of all decisions prior to execution of these decisions.

q. Group dynamics may vary. Dialogue is important to get different viewpoints.

r. I learned about the diversity people can bring to a given situation.

4. What effect, if any, is this project likely to have on your behavior in the future?

a. It will make me look at the professionalism of my performance at the job of a principal, and that I must perform my duties effectively.

b. That as an administrator you must collect as many facts about any situation and learn to be sensitive to all involved needs.

c. I hope to be more aware of others opinions and be able to look at problems from a different perspective.

d. Know your prospective group members well before you choose them to initiate a process. Choose a strong leaders to facilitate (not dictate) your group. Be prepared.

e. It will help me to focus quickly on the problem and plan steps systematically for solving the problem.

f. I will take a closer look at the many issues within the problem. Most importantly, I will try to be fair and use common sense.

g. The more concise in my writing. As the old Dragnet show stated, "Just the facts, just the facts!"

h. I will contact others and gather more information prior to answering questions. I am writing briefer memos.

i. Don't make any decision instantaneously unless it is a matter of life and death. Weigh alternatives. Also, deal with issues early before they get out of hand.

j. To get at the problem very quickly and find the solution right away, since people have different personalities and learning styles.

k. This project clarified special education issues. It also helped to remind me how different personalities need to listen to each other.

l. In the future, I would feel more confident about writing a memo. I also would realize that not everyone in the group needs to be, or can be the leader.

m. I think it will effect how I approach problems in terms of thinking the problem through from many perspectives and taking charge of the solutions.

n. To think through how I would respond in writing to a given situation.

o. An awareness to confront issues as they arise - don't wait.

p I also learned a great deal from the writing technique information obtained from the book, Guide to Managerial Communication. The technique for writing memos compared to written text or essay was very interesting to me. I feel I will attempt to remember that information upon writing my next communication piece. Also, this project prepares one for the position of having to make decisions when individuals involved will be positively and negatively effected with either decision.

q I feel group consensus is important. People who need to be notified, are notified or contacted.

r. I will use the style manual suggested as a reference.

5. What recommendations would you make for improving this project?

a The project is great, just put a time limit on it, and make it an individual project, not a group.

b. Give more time as a group to identify what the problem is.

c. Be specific about Tommy's IEP and his specific needs. Also the time frame of events could have been clearer.

d Let people volunteer with small groups (leadership roles), model memos, present alternate scenarios.

e Perhaps the superintendent's message should be included after the scenarios and introduction to the characters.

f. More time.

g To give more complete samples of memos. Perhaps if you were to include other situations and examples memos I would fine that very beneficial.

h Put the superintendent's request for answer after the situation.

i. Put superintendent's note (top p. 6) toward end of assignment after reading the scenario.

j. None at the moment.

k Have a section on listening to each other or group dynamics. Our group did not function well.

l. I believe that the superintendent's directive to the principal should be placed at the end of

the Wright Right!

m. More time - allow 1 or 2 more group meetings; 1 meeting specifically for the writing mechanics.

n. More time is needed to process the two important parts: resolving the problem & learning to write a good memo.

o. None - it was excellent.

p. Recommendations for this project include group efforts as appropriate and available. It may be beneficial for A500 students to write a much shorter memo initially to practice technique prior to writing this particular one which involves a great deal of information.

q. None

r. I think the "writing" component needs to be emphasized.

Advantages and Pitfalls

The advantages and pitfalls of implementing problems of practice as an instructional delivery strategy in the principals' certification program at IUSB are listed. The listing in not intended to be exhaustive.

1. Students enrolled in the orientation/introduction course that was offered in Summer 1995 comprised both students interested in seeking cohort admission and those students who were completing the courses required in the previous principal certification program. The problems of practice instructional delivery strategy was enthusiastically received by both groups of student. The pitfall however, is the lack of commitment of students who do not view the course as a screening for cohort participation. The major content of this revised course was an introduction to the four Domains that constitute the IUSB School Leadership Collaborative, presented using the instructional delivery strategy of problems

of practice. Some of these students expected a survey of school administration as the content focus. In addition, these students had also taken their school administration courses in a haphazard sequence. And although the A500 School Administration course is designed to be the first course in the sequence of school administration courses, it was taken whenever the student fit it in their schedule. The A500 School Administration course was the last course in the principals' certification program for some of these students.

2. An advantage of the problems of practice curriculum is the involvement of students in the design of their learning. Students enthusiastically embraced the concept and, while frustrated with the inquiry and discovery involved at first, applauded this innovation in the principals' certification program. During the course of the term, students were assigned to groups to work on a significant problem that would be faced by a school principal. Because of the logistics already discussed in this paper, the project was a simulated one. However, it served to acclimate students to the concept of problems of practice. Students were proud of their projects and the group process involved in the development of the project. A pitfall happened during the Fall 1994 class when one student decided that he would not participate with the group. The decision was reported by the student to the professor the day the group was to present their project. The effect was negative on the group presentation.

3. The IUSB School Leadership Collaborative - the new principals' certification program - was based on implementing a planning initiative that has its impetus in four school corporations in the South Bend area. The school corporations have been very supportive

and enthusiastic about this collaborative. They have participated in the screening of students for the cohort, including the design of the screening/interview process. They have also voluntarily committed to serve as clinical faculty, sites for problems of practice, and have served as guest lecturers. The support has been encouraging, however pitfalls remain. Students in the cohort are expected to arrange for release time for participation in the problems of practice component of the courses. The problems on practice, in addition to being a content focused instructional strategy, also serves as a practicum - which is required for licensing in the State of Indiana. Some students in the cohort are not employed by one of the four school corporations that participated in the development of the project. Those school corporations/districts are not knowledgeable about the new principals certification program and do not have the same commitment to provide the students with time to participate in project activities and problems of practice assignments. In addition, at least one of the districts initially involved in the project has indicated that it will not give preferential treatment to this program for its corporation employees to participate in problems of practice during the workday.

4. Practitioners and university faculty believe that they have an understanding of problems of practice based on conversations with those who have served on the planning teams for the School Leadership Collaborative. In assessing their meaning of problems of practice, the director has found that some of these practitioners view the problems of practice as an internship and may be looking for one-on-one placements. The idea of the problems of practice is students in consultant teams. A workshop will be presented to practitioners and other interested parties on problem based learning and problems of practice.

5. The program is an innovative one and will need to go through the cycle before the effectiveness can be determined. During the cycle, the program will remain dynamic. An evaluation component will also be incorporated.

6. The program accepts students in cohorts. While this has the advantage of providing a support group, it also has the pitfall of a lack of flexibility for admittance. The director has received several calls since the cohort was selected for others to be included with this group of students. They were told they had to wait a year for the next cohort selection. This may hinder their access to administrative certification within their desired timeframe.

7. The cohort includes participation of nonpublic school students aspiring to become principals of parochial schools. The program was designed in collaboration with public school corporations and the university faculty. Consideration was not given to nonpublic school needs.

8. The general unavailability of resources, including books and periodicals, creates another pitfall to the program. Some of the availability has to do with limited research on problems of practice as an instructional model. Others have to do with the recency of the establishment of a program area in school administration at IUSB.

9. The instructor's initial set up time for problem based learning projects was also a pitfall. The two projects used in the introductory course required thorough review by the instructor, contacts with practitioners, and other a sundry preparations to insure a successful experience for students.

10. The Director for the School Leadership Collaborative (hired in July 1994) was a practicing school administrator for more than twenty years. Her immediate past appointment was

high school principal. The director as a recent practitioner was an advantage in the implementation of problems of practice. She was able to interject recent experiences into the discussion on the projects. The pitfall, however, was that she was inexperience in the culture of the university and university teaching. Student evaluations indicated that too much work was required in the courses. The balance in course workload will come with experience in university teaching.

Conclusion

Implementing a problems of practice instructional delivery strategy in higher education is not without its challenges. Problems of practice threatens the status quo and causes one to rethink how school administrators should be prepared. It is an active learning technique that continues to gain interest by those seeking to be a part of insuring that educational leaders for the next century are trained using the best of "knowledge-in-practice." Eurich (1964, cited in Bonwell & Eison, 1991, p. 49) says that "The spirit of America is innovation. In almost every area of life we crave the new and better...Yet college teaching stands out as one of the few field in which innovation and improvement are neglected". Colleges and universities must also accept the challenge to change teaching practices to foster active learning techniques. Teaching techniques must be rewarded as well as praised (p. 54).

The barriers to changing instructional practices lies within each of us as we prepare to teach our university classes. University faculties must model the practices we teach as effective for K-12 instruction. The programs that prepare our educational leaders is a beginning point for innovative instructional modelling. "The time is of the now!"...If not now, when. If not you - who!

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